

4)

```

jcho18@gsuad.gsu.edu@snowball:~/Lab4
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3210 with a C or higher
Prerequisites CSC 3210 with grade of C or higher
Prerequisites CSC 3320 and either MATH 3020 or MATH 3030 with a C or higher
Prerequisites CSC 2720 and CSC 3320 with grades of "C" or higher.Students must meet the Computer Science Major Eligibility Requirement in order to enroll in this course
Prerequisites CSC 2720 and CSC 3320 with grades of "C" or higher
Prerequisites CSC 2720 (Data Structures) and CSC 3320 (System Level Programming)
Prerequisites CSC 2720 Data Structure and CSC 3320 System-Level Programming with grades of C or better
Prerequisites CSC 3210 Computer Organization and Programming, CSC 2720 Data Structure
Prerequisites CSC 2720 (Data Structures) and CSC 3320 (System Level Programming)
Prerequisites CSC 3210 and CSC 3320 with grades of C or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 2720, CSC 3210, and CSC 3320 with a C or higher
Prerequisites CSC 2720 and CSC 3210 with grades of "C" or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with a C or higher
Prerequisites CSC 3320 with grade of "C" or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with a grade of C or higher
Prerequisites CSC 3320 with a grade of C or higher
[jcho18@gsuad.gsu.edu@snowball Lab4]$

```

Shows lines containing the string 'CSC 3' in the CSC_Course.txt file

5)

```

[jcho18@gsuad.gsu.edu@snowball Lab4]$ grep 'CSC 3|CSC 1' CSC_Course.txt
[jcho18@gsuad.gsu.edu@snowball Lab4]$

```

Command didn't work, but i assume it allows the usage of extended regex, which means symbols and what not works

6)

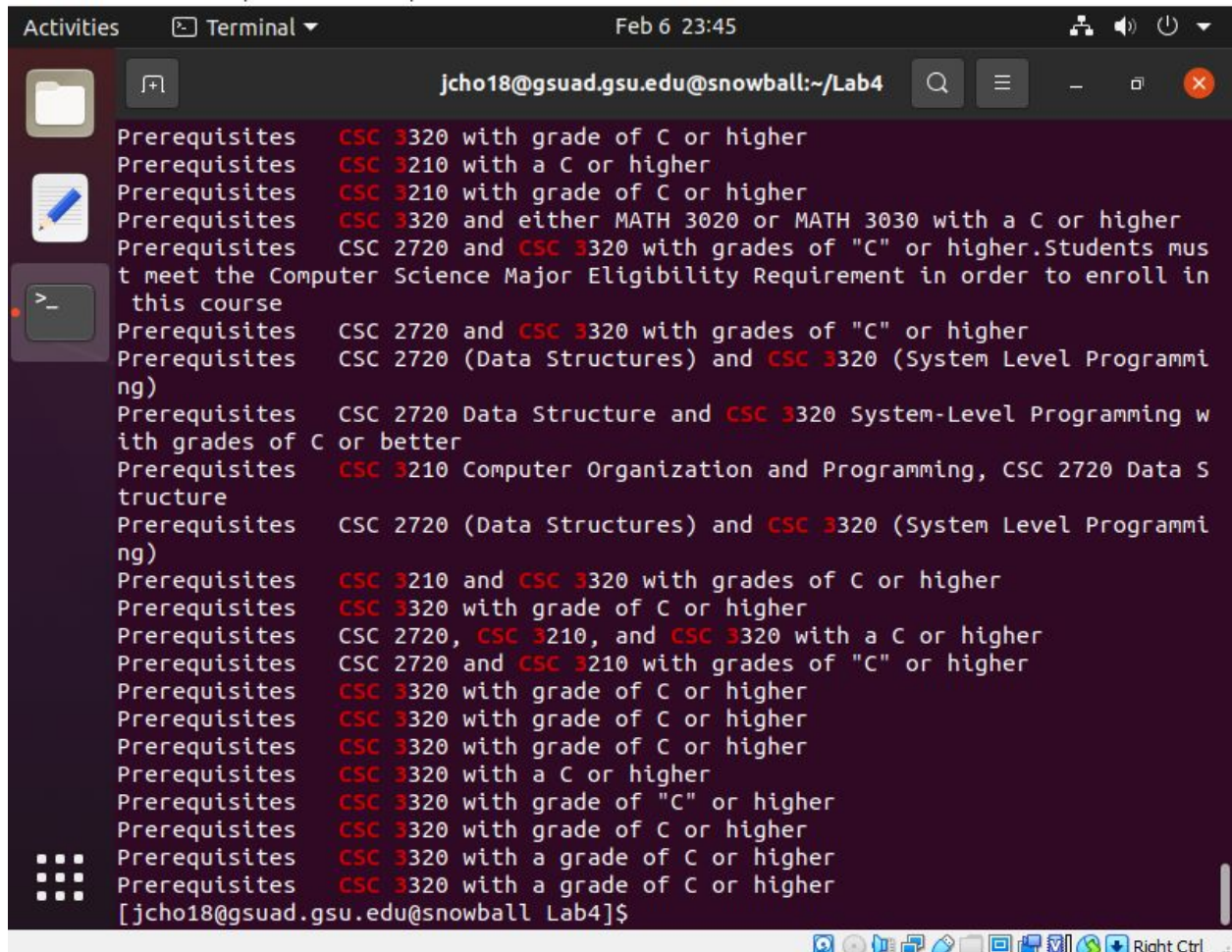
```

jcho18@gsuad.gsu.edu@snowball:~/Lab4
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3210 with a C or higher
Prerequisites CSC 3210 with grade of C or higher
Prerequisites CSC 3320 and either MATH 3020 or MATH 3030 with a C or higher
Prerequisites CSC 2720 and CSC 3320 with grades of "C" or higher.Students must meet the Computer Science Major Eligibility Requirement in order to enroll in this course
Prerequisites CSC 2720 and CSC 3320 with grades of "C" or higher
Prerequisites CSC 2720 (Data Structures) and CSC 3320 (System Level Programming)
Prerequisites CSC 2720 Data Structure and CSC 3320 System-Level Programming with grades of C or better
Prerequisites CSC 3210 Computer Organization and Programming, CSC 2720 Data Structure
Prerequisites CSC 2720 (Data Structures) and CSC 3320 (System Level Programming)
Prerequisites CSC 3210 and CSC 3320 with grades of C or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 2720, CSC 3210, and CSC 3320 with a C or higher
Prerequisites CSC 2720 and CSC 3210 with grades of "C" or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with a C or higher
Prerequisites CSC 3320 with grade of "C" or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with a grade of C or higher
Prerequisites CSC 3320 with a grade of C or higher
[jcho18@gsuad.gsu.edu@snowball Lab4]$

```

Shows all lines with CSC 3 or CSC 1 i guess.

7)



```

Activities  Terminal  Feb 6 23:45
jcho18@gsuad.gsu.edu@snowball:~/Lab4
Prerequisites  CSC 3320 with grade of C or higher
Prerequisites  CSC 3210 with a C or higher
Prerequisites  CSC 3210 with grade of C or higher
Prerequisites  CSC 3320 and either MATH 3020 or MATH 3030 with a C or higher
Prerequisites  CSC 2720 and CSC 3320 with grades of "C" or higher. Students must meet the Computer Science Major Eligibility Requirement in order to enroll in this course
Prerequisites  CSC 2720 and CSC 3320 with grades of "C" or higher
Prerequisites  CSC 2720 (Data Structures) and CSC 3320 (System Level Programming)
Prerequisites  CSC 2720 Data Structure and CSC 3320 System-Level Programming with grades of C or better
Prerequisites  CSC 3210 Computer Organization and Programming, CSC 2720 Data Structure
Prerequisites  CSC 2720 (Data Structures) and CSC 3320 (System Level Programming)
Prerequisites  CSC 3210 and CSC 3320 with grades of C or higher
Prerequisites  CSC 3320 with grade of C or higher
Prerequisites  CSC 2720, CSC 3210, and CSC 3320 with a C or higher
Prerequisites  CSC 2720 and CSC 3210 with grades of "C" or higher
Prerequisites  CSC 3320 with grade of C or higher
Prerequisites  CSC 3320 with grade of C or higher
Prerequisites  CSC 3320 with grade of C or higher
Prerequisites  CSC 3320 with grade of "C" or higher
Prerequisites  CSC 3320 with grade of C or higher
Prerequisites  CSC 3320 with a grade of C or higher
Prerequisites  CSC 3320 with a grade of C or higher
[jcho18@gsuad.gsu.edu@snowball Lab4]$

```

Same as grep, but allows the usage of extended regex, allows you to search for symbols.

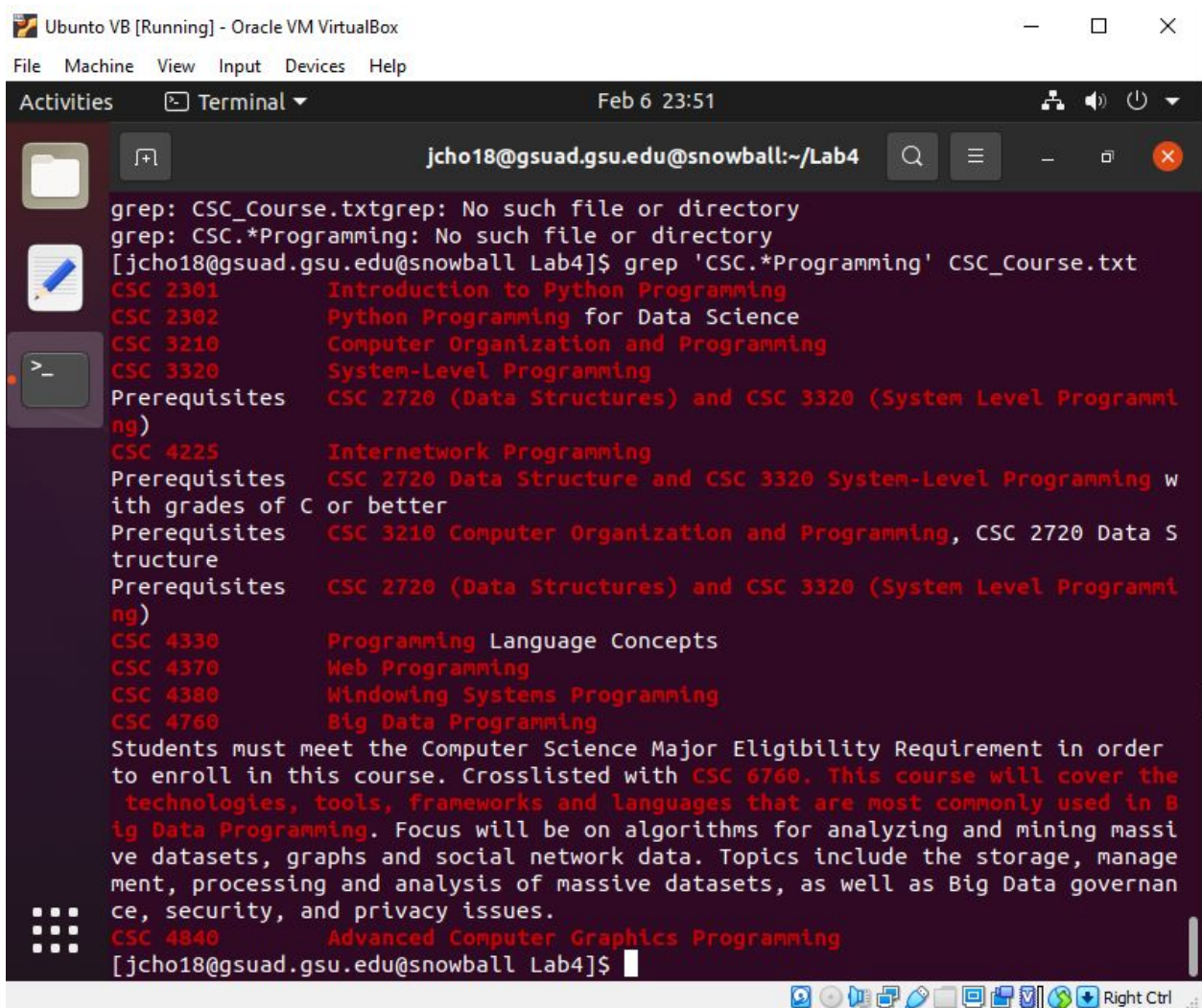
8) N/A

Fgrep searches for fixed character strings in a file.

9) N/A

Fgrep searches for fixed character strings in a file, -N

10)



```

Ubuntu VB [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Terminal Feb 6 23:51
jcho18@gsuad.gsu.edu@snowball:~/Lab4
grep: CSC_Course.txt: No such file or directory
grep: CSC.*Programming: No such file or directory
[jcho18@gsuad.gsu.edu@snowball Lab4]$ grep 'CSC.*Programming' CSC_Course.txt
CSC 2301      Introduction to Python Programming
CSC 2302      Python Programming for Data Science
CSC 3210      Computer Organization and Programming
CSC 3320      System-Level Programming
Prerequisites CSC 2720 (Data Structures) and CSC 3320 (System Level Programmi
ng)
CSC 4225      Internetwork Programming
Prerequisites CSC 2720 Data Structure and CSC 3320 System-Level Programming w
ith grades of C or better
Prerequisites CSC 3210 Computer Organization and Programming, CSC 2720 Data S
tructure
Prerequisites CSC 2720 (Data Structures) and CSC 3320 (System Level Programmi
ng)
CSC 4330      Programming Language Concepts
CSC 4370      Web Programming
CSC 4380      Windowing Systems Programming
CSC 4760      Big Data Programming
Students must meet the Computer Science Major Eligibility Requirement in order
to enroll in this course. Crosslisted with CSC 6760. This course will cover the
technologies, tools, frameworks and languages that are most commonly used in B
ig Data Programming. Focus will be on algorithms for analyzing and mining massi
ve datasets, graphs and social network data. Topics include the storage, manage
ment, processing and analysis of massive datasets, as well as Big Data governan
ce, security, and privacy issues.
CSC 4840      Advanced Computer Graphics Programming
[jcho18@gsuad.gsu.edu@snowball Lab4]$

```

Shows the courses available within the text file and their prereqs

11)

Ubuntu VB [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Activities Terminal Feb 6 23:52

jcho18@gsuad.gsu.edu@snowball:~/Lab4

```

CSC 4225      Internetwork Programming
Prerequisites CSC 2720 Data Structure and CSC 3320 System-Level Programming with grades of C or better
Prerequisites CSC 3210 Computer Organization and Programming, CSC 2720 Data Structure
Prerequisites CSC 2720 (Data Structures) and CSC 3320 (System Level Programming)
CSC 4330      Programming Language Concepts
CSC 4370      Web Programming
CSC 4380      Windowing Systems Programming
CSC 4760      Big Data Programming
Students must meet the Computer Science Major Eligibility Requirement in order to enroll in this course. Crosslisted with CSC 6760. This course will cover the technologies, tools, frameworks and languages that are most commonly used in Big Data Programming. Focus will be on algorithms for analyzing and mining massive datasets, graphs and social network data. Topics include the storage, management, processing and analysis of massive datasets, as well as Big Data governance, security, and privacy issues.
CSC 4840      Advanced Computer Graphics Programming
[jcho18@gsuad.gsu.edu@snowball Lab4]$ grep 'CSC.*Programming$' CSC_Course.txt
CSC 2301      Introduction to Python Programming
CSC 3210      Computer Organization and Programming
CSC 3320      System-Level Programming
CSC 4225      Internetwork Programming
CSC 4370      Web Programming
CSC 4380      Windowing Systems Programming
CSC 4760      Big Data Programming
CSC 4840      Advanced Computer Graphics Programming
[jcho18@gsuad.gsu.edu@snowball Lab4]$

```

Shows only the courses available within the text file.

12)N/A, {} doesn't work I guess.

13)

```

[jcho18@gsuad.gsu.edu@snowball ~]$ cd Lab4
[jcho18@gsuad.gsu.edu@snowball Lab4]$ egrep --color -w 'CSC[^3]*3{2}[^3]*' CSC_Course.txt
CSC 3320      System-Level Programming
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 and either MATH 3020 or MATH 3030 with a C or higher
Prerequisites CSC 2720 and CSC 3320 with grades of "C" or higher.Students must meet the Computer Science Major Eligibility Requirement in order to enroll in this course
Prerequisites CSC 2720 and CSC 3320 with grades of "C" or higher
Prerequisites CSC 2720 (Data Structures) and CSC 3320 (System Level Programming)
Prerequisites CSC 2720 Data Structure and CSC 3320 System-Level Programming with grades of C or better
Prerequisites CSC 2720 (Data Structures) and CSC 3320 (System Level Programming)
Prerequisites CSC 3210 and CSC 3320 with grades of C or higher
Prerequisites CSC 3320 with grade of C or higher
CSC 4330      Programming Language Concepts
Prerequisites CSC 2720, CSC 3210, and CSC 3320 with a C or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with a C or higher
Prerequisites CSC 3320 with grade of "C" or higher
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with a grade of C or higher
Prerequisites CSC 3320 with a grade of C or higher
[jcho18@gsuad.gsu.edu@snowball Lab4]$

```

Shows the preques

14)N/A

Shows all classes that uses C++

15)N/A

Shows all classes that uses C and +

The screenshot shows a terminal window titled "Terminal" with the user "jcho18@gsuad.gsu.edu@snowball:~/Lab4". The terminal displays a list of computer science courses and their prerequisites. The text is as follows:

```

11K [or CHEM 1211 and CHEM 1211L] with grades of "C" or higher. Students must me
et the Computer Science Major Eligibility Requirement in order to enroll in thi
s course
CSC 4720      Human-Computer Interaction
Prerequisites CSC 3320 with grade of C or higher
Prerequisites CSC 3320 with a C or higher
Prerequisites CSC 2720 with grade of C or higher
Prerequisites CSC 2720 or DSCI 2720 with a C or higher. Students must meet th
e Computer Science Major Eligibility Requirement in order to enroll in this cou
rse.
Prerequisites CSC 2720 with grade of C or higher
Prerequisites CSC 2720 with a C or better
Prerequisites CSC 2720 with a C or higher
CSC 4820      Interactive Computer Graphics
Prerequisites CSC 3320 with grade of "C" or higher
Prerequisites CSC 3320 with grade of C or higher
CSC 4840      Advanced Computer Graphics Programming
Prerequisites CSC 3320 with a grade of C or higher
CSC 4841      Computer Animation
Prerequisites CSC 3320 with a grade of C or higher
Prerequisites CSC 4520 with a grade of C or better
Prerequisites CSC 4850 or DSCI 4850 with a C or higher. Students must meet th
e Computer Science Major Eligibility Requirement in order to enroll in this cou
rse.
CSC 4940      Computer Science Internship
CSC 4980      Topics in Computer Science
CSC 4982      Undergraduate Research in Computer Science
CSC 4995      Directed Readings B.I.S.-CTW
[jcho18@gsuad.gsu.edu@snowball Lab4]$

```

The terminal window has a dark background with red and white text. The top bar shows the date and time "Feb 6 23:59". The bottom bar shows system icons and the text "Right Ctrl".

It does something.